

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/14/08 has been entered.

1. Claims 1, 2, 6, 7, and 11-18 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 6, 7, and 11-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhykerd, et al. (Impact of bulking agents, forced aeration, and tillage on remediation of oil-contaminated soil) and "gardening series", and further in view of Glaze, et al. (U.S. Patent number 5,593,888) and further in view of Numata, et al. (U.S. Patent number 6,171,844).

Rykerd describes the method including adding a gas phase rate increasing inorganic soil-improving material (vermiculite, page 281, 1st paragraph); mixing by agitation, without aerating by introducing injected air (e.g. page 280, last paragraph; “tillage”), while utilizing microbes already present in the soil (page 280, second to last paragraph) .

Rhykerd lacks the claimed perlite. Rhykerd teaches vermiculite, in combination with a low clay soil (page 280, second column, third paragraph).

“Gardening” describes soil amendments for improving soil. The document teaches that perlite is useful for high clay soils in place of vermiculite. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Rhykerd process to have included perlite for use in high clay soils.

Rhykerd also fails to teach the microbes added to the soil. Rhykerd thus fails to teach the added microbes, and the microbes comprising M07.

Glaze (e.g. 10:62-11:2) describes the adding of bacteria. One of ordinary skill in the art would have understood that adding specialized bacteria would have the advantage of speeding remediation of contaminants for which indigenous bacteria are deficient. Glaze (e.g. 10:36 and 29:29) also teaches separate and subsequent addition of bacteria. One of ordinary skill in the art would have understood that the bacteria would distribute better if added separately. Glaze fails to teach the M07, but teaches that any commercial strains may be used.

In light of the teachings in Glaze, it would have been obvious to one of ordinary skill in the art at the time of the invention to have practiced the Rhykerd process with microbes added to the contaminated soil.

Numata teaches the use of M07 for degrading trichloroethylene in soil.

One of ordinary skill in the art would have found it obvious to have used M07 with the Rhykerd process, as modified; in order to degrade trichloroethylene in soil. Therefore claim 1 is obvious and unpatentable.

RE claim 2: Glaze (e.g. 10:36 and 29:29) also teaches separate and subsequent addition of bacteria.

Regarding independent claim 6:

Rhykerd describes the method including adding a gas phase rate increasing inorganic soil-improving material (vermiculite, page 281, 1st paragraph); mixing by agitation, without aerating by introducing injected air (e.g. page 280, last paragraph; “tillage”), and degrading utilizing microbes.

Rhykerd lacks the claimed perlite. Rhykerd teaches vermiculite, in combination with a low clay soil (page 280, second column, third paragraph).

“Gardening” describes soil amendments for improving soil. The document teaches that perlite is useful for high clay soils in place of vermiculite. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Rhykerd process to have included perlite as called for in amended claim 6;

for use in high clay soils. Rhykerd also fails to teach the microbes added to the soil. Rhykerd thus fails to teach the added microbes, and the microbes comprising M07.

Glaze (e.g. 10:62-11:2) describes the adding of bacteria. One of ordinary skill in the art would have understood that adding specialized bacteria would have the advantage of speeding remediation of contaminants for which indigenous bacteria are deficient. Glaze (e.g. 10:36 and 29:29) also teaches separate and subsequent addition of bacteria. One of ordinary skill in the art would have understood that the bacteria would distribute better if added separately. Glaze fails to teach the M07, but teaches that any commercial strains may be used.

In light of the teachings in Glaze, it would have been obvious to one of ordinary skill in the art at the time of the invention to have practiced the Rhykerd process with microbes added to the contaminated soil.

Numata teaches the use of M07 for degrading trichloroethylene in soil.

One of ordinary skill in the art would have found it obvious to have used M07 with the Rhykerd process, as modified; in order to degrade trichloroethylene in soil.

Therefore claim 6 is obvious and unpatentable.

RE claim 7: Glaze (e.g. 10:36 and 29:29) also teaches separate and subsequent addition of bacteria.

Response to Arguments

3. Applicant's arguments with respect to claims 1 and 6 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Kreck whose telephone number is 571-272-7042. The examiner can normally be reached on Mon-Fri 6am-3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Kreck/
Primary Examiner, Art Unit 3672

10 April 2008